From "Wetland Program Development Grants (WPDGs) Case Studies"
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Washington Department of Ecology: *Informing professionals and public entities about wetland science, protection and management to maximize benefits to Washington's wetland resources*

Introduction

The Washington Department of Ecology (Ecology) was created in 1970 as the principal environmental management agency in Washington with the primary goals "to prevent pollution, clean up pollution and support sustainable communities and natural resources." The agency's Shorelands and Environmental Assistance Program plays the lead role in protecting wetlands in accordance with the State Water Pollution Control Act. Given these shared responsibilities, Ecology relies on partnerships with other government agencies and communities to facilitate the effective management of these resources.

Ecology utilized WPDGs to develop several different components in the wetlands program, including water quality standards, permitting, conservation strategies, monitoring and assessment, compensatory mitigation and education. All these efforts have contributed to the effectiveness of the wetlands program in part by soliciting cooperation and involvement from other agencies and the community. Ecology welcomes public involvement and many of the tools and documents created are resources for professional stakeholders, scientists, developers, government officials, policy makers, landowners and the general public. Ecology works hard to make wetland protection a community effort and demonstrates why partnerships are such an important component in building a comprehensive wetland program.

WPDG Activity

The Growth Management Act (GMA) of Washington requires that every city and county within the state designate critical areas for protection within their boundaries, including wetlands. A 1995 amendment to the GMA further required city and county governments to include best available science, as defined in the Washington Administrative Code (WAC 365-195-905), when developing policies and regulations in those critical areas. This amendment would help insure that any new policies were solidly based on reliable information that was obtained through a valid scientific process.

Ecology received a WPDG and worked with the Washington Department of Fish and Wildlife to produce documents that would give local governments and anyone interested in wetland protection or management, a synthesis of the wetland science in Washington (Volume 1) and guidance for protecting and managing wetlands (Volume 2). A brief description of each volume is given below:

Wetlands in Washington State, Volume 1: A Synthesis of the Science

This document provides a synthesis and summary of literature relevant to the science and management of Washington's wetlands. It meets the requirements of 'best available science' according to WAC and is based largely on information from sources that meet those same WAC requirements. Five primary topics were addressed in Volume1:

- How environmental factors control the functions of wetlands across the landscape and at individual sites, how freshwater wetlands are classified according to these controls and what functions are performed by different classes of freshwater wetlands in the state;
- How human activities and land uses affect the environmental factors that control the functions of freshwater wetlands;
- How disturbances caused by human activities and land uses impact the performance of functions by freshwater wetlands;
- How wetlands are protected and managed using common tools such as buffers and compensatory mitigation, including what the literature says about the relative effectiveness of these tools; and,
- How cumulative impacts can result from current approaches to managing and regulating wetlands.

Wetlands in Washington, Volume 2: Guidance for Protecting and Managing Wetlands
Volume 2 relies on the synthesis provided in Volume I to give guidance on programs that are or could be used to protect and manage wetlands. This document is only advisory but it does give specific recommendations, based on the science, on how to effectively protect wetlands. Since Volume I revealed that human impacts within and outside a wetland are a major cause for wetlands losses, Volume II encourages local governments to protect wetlands in a landscape context instead of case-by-case basis.
The major messages in Volume 2 are:

- Site-by-site wetland management fails to effectively protect the resource;
- Effective protection of wetlands and their functions requires understanding and managing their interaction with environmental factors on a watershed scale;
- Information generated through landscape analysis is needed in order to understand and manage the factors mentioned above;
- Landscape analysis should be the first step in a four-step framework used to develop a diverse program – the other steps are prescribing solutions, taking actions, monitoring results and applying adaptive management; and,
- Protection and management measures should incorporate:
    - Policies and plans;
    - Regulations; and,
    - Non-regulatory activities.

Both volumes were published in 2005 and are available to the public on Ecology's Wetlands web page (http://www.ecy.wa.gov/programs/sea/wetlan.html), providing a needed resource that will likely help expedite efforts to protect wetlands. Findings from this project are also being incorporated in to the revised state guidance on wetland mitigation. The mitigation guidance can be found on the wetlands website at http://www.ecy.wa.gov/programs/sea/wet-updatedocs.htm.

Current Work and Future Plans

Ecology is currently working on developing a training curriculum for city and county staff that addresses a wide range of wetland topics. The purpose is to improve the ability of cities and counties to protect wetlands, which includes the use of best available science. To identify the priorities for training, Ecology conducted a survey to assess the needs of local government staff, including planners and elected officials. Based on the survey, Ecology is developing training materials on topics that include using the rating system for western or eastern Washington; reviewing wetland ratings in western or eastern Washington; developing critical areas ordinances using best available science; Wetlands 101 for planners and elected officials; and managing and protecting wetlands using best available science. Courses in these topics will be taught around the state starting in the spring of 2006.

Another significant effort Ecology is undertaking, with support from an EPA Environmental Outcome Wetland Demonstration Pilot grant, is a three-year program to evaluate the effectiveness of the state's wetland regulatory protection efforts. Ecology staff will follow-up on permitted projects with wetland impacts to ensure that applicants comply with permit conditions and that all relevant data is properly entered into the state aquatic permits database. This will allow for accurate reporting on the relative effectiveness of wetland regulations in meeting the goal of no net loss and net gain.

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